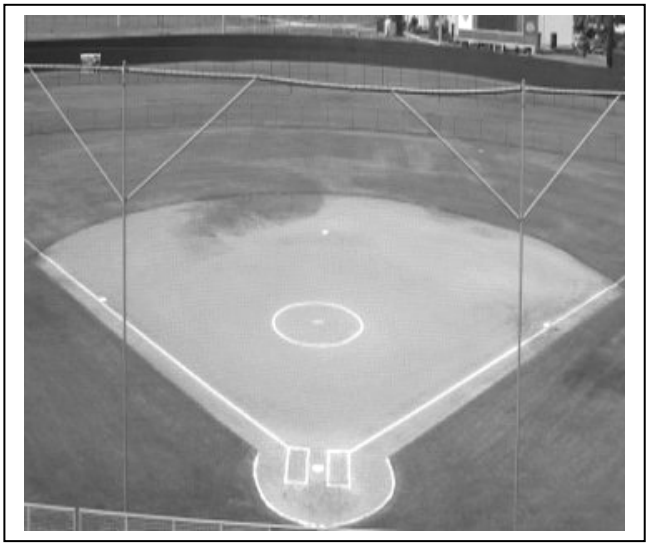
# Very Basic Guide to Making A Softball Field



***MESSAGE FROM ISF PRESIDENT DON PORTER***

Like all sports, for practice, training, or competition, a "field of play" is needed and while softball is competed in at the international level, it is also played by millions who do not compete at these levels, but still need a field to practice and compete.

The ISF's number one priority is the development of the sport at all levels of play including recreational, schools, clubs, and masters, so a "playing field" that can be easily and economically built and maintained is a must.

This guide is designed to help those in countries, cities, towns, and villages that have land space but not the technical information to prepare a field of play for softball.

Softball is a growing global sport and it is important that the International Softball Federation and its over 125 member National Federations provide support to those that wish to develop, organize, and play softball. This guide is part of that commitment.

Don E. Porter
ISF President

**NOTE:**

*This manual is not intended to be a complete and comprehensive guide for dealing with every aspect of managing a softball field. Instead,* ***the purpose of this manual is to help the reader build a very simple softball field out of whatever might be available.***

*ISF Championship softball stadiums can be very impressive and expensive structures built to hold over 10,000 people – but they can also be very simple and temporary by using a portable backstop, four bases, and some foul lines.*

*To help you build a softball field that is appropriate for your budget and needs, the ISF offers two different Facilities Manuals:*

- **ISF Technical & Venue Manual** ***Available from ISF***
  (for Olympic, Regional, and Multi-sport competitions)

- **ISF Very Basic Guide to Making a Softball Field** ***You are reading it!***

*Let's read on and learn just how YOU can make a softball field out of what you might already have available wherever you're trying to play softball.*

*The key is to be CREATIVE and you can build a softball field that everyone can enjoy!*

*Good Luck!*

# Contents


1. **What Does a Softball Field Look Like?**
2. **Parts of a Softball Field**
3. **Where to Start?**
4. **Making the Playing Surface**
5. **Making the Backstop**
6. **Make the Foul Lines**
7. **Other Parts of the Softball Field**

***Must Haves:***
- Home Plate and Pitcher's Plate
- Bases

***Can Haves:***
- Outfield Fence
- Dugouts
- Scorer's Area
- Bleachers
- Scoreboards

8. **Caring For Your Field**
   - The grass
   - The infield dirt (if you have any)

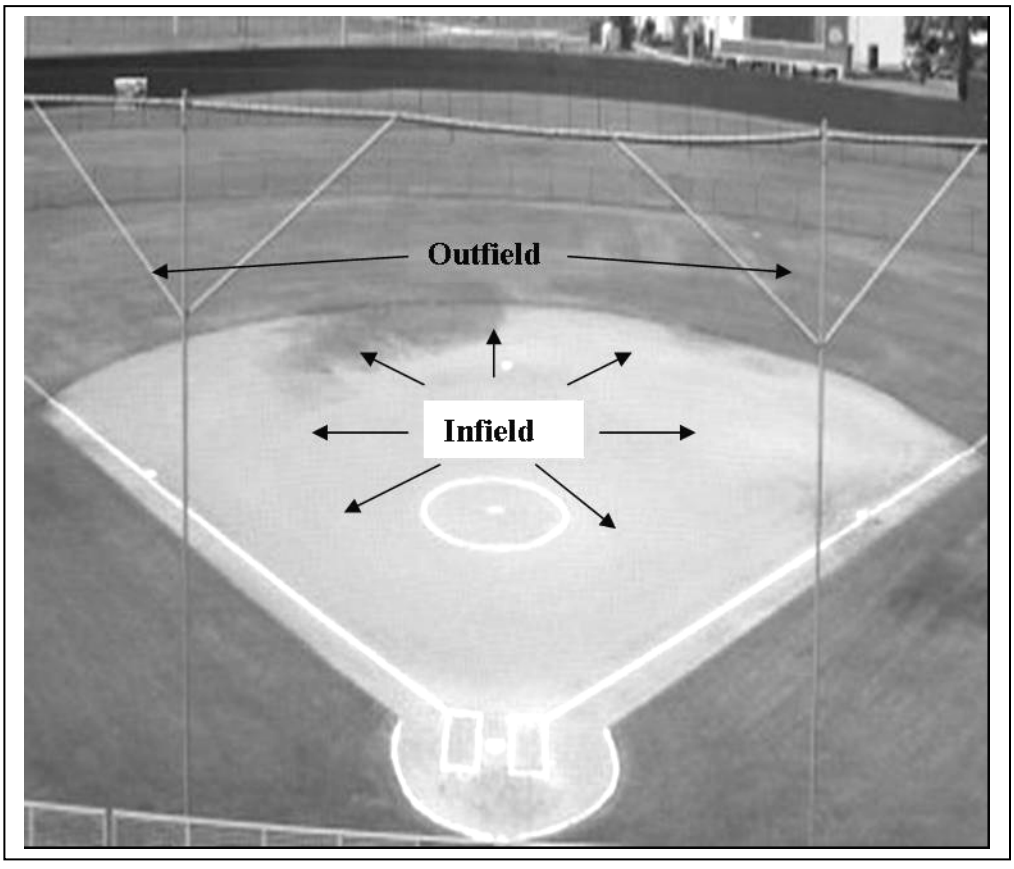
# 1. What Does A Softball Field Look Like?

The playing facility where a softball game is played is referred to as a “Softball Field.” Depending on what part of the world you’re from, it might also be a “Softball Pitch,” or a “Softball Facility.” What you call it likely depends on where you’re from, but just know that the official term is a Softball Field. And no, the term does not refer to a meadow or a field.

Let’s look at the playing surface for a softball game – a softball field – and identify the different parts of the field:

The two main portions of the field are:
**- The Infield**
**- The Outfield**

**The OUTFIELD** is an all-grass area that goes the entire width of your field and all the way to the outfield fence, if there is one. It’s the portion of the field beyond the infield.

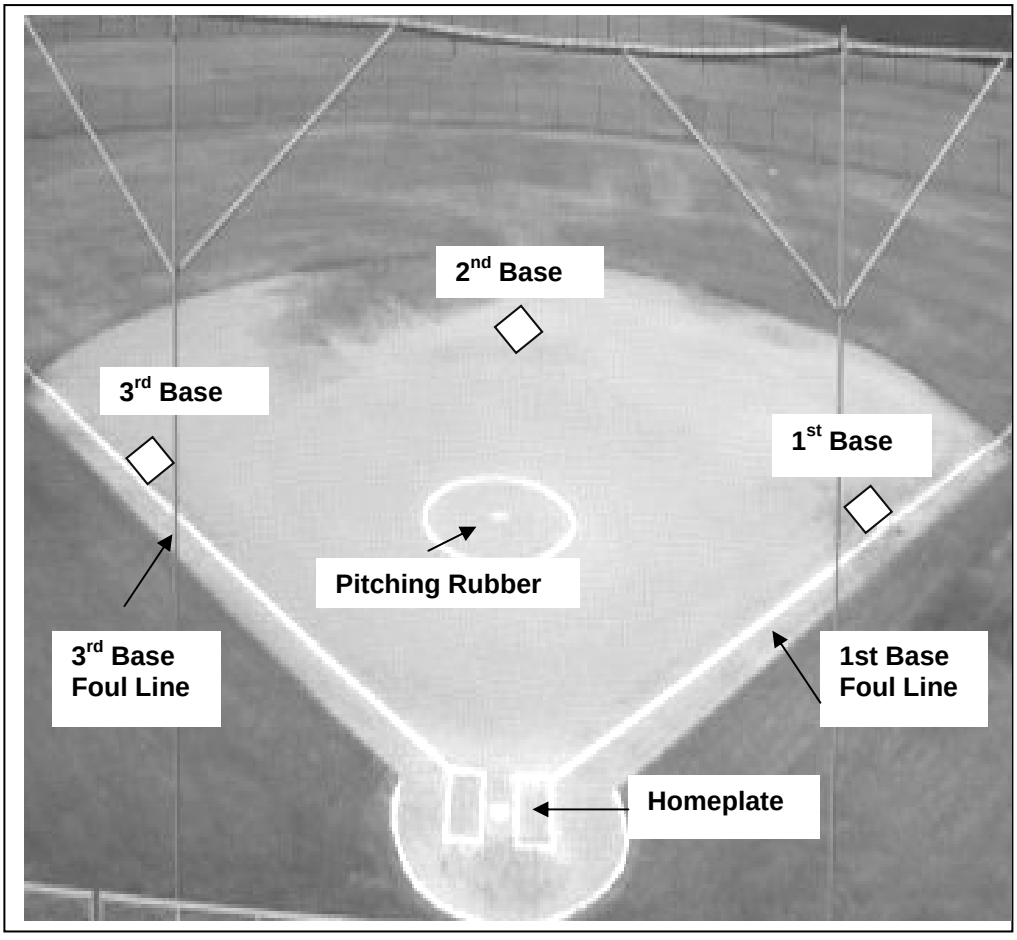



**The INFIELD** is the portion of the field that is usually dirt covered, and is commonly a curved cutout that extends from just past 3rd, 2nd and 1st base.

# 2. Parts of a Softball Field

Building a softball field can involve making an infield and an outfield, but it must involve the following:

- **BASES**
- **HOMEPLATE**
- **PITCHING RUBBER**
- **FOUL LINES**



# 3. Where to Start?

Here are some important questions to find answers to when starting out to build your softball field -

a) **Where is the field going to be placed?**
b) **Will it be permanent or temporary?**
c) **Who will be playing on your field?**

## A) Where is the Field Going to be Placed?

The first thing you need to do in order to build your softball field is to figure out where you are going to put it. Here are some options for places you can put a softball field:

- On a piece of land that you either own or that the government has given you.
- On an existing sports field like a football field, cricket pitch, rugby field, or hockey field
- Indoors on a sports court

So first, determine what land you have to use to make a softball field. Maybe you have to share the land or space with other sports, and if so, that's okay but your field will be a little more temporary in that case. And maybe you actually have a piece of land that has been given to you to use only for softball, and if that's the case then you are very fortunate and are able to make your softball field much more permanent. Which leads us to the next item to consider -

## B) Will it be Permanent or Temporary?

This question is crucial. If you can make your field permanent then you'll be able to do so much more with it, and gradually make it better over time. But, if the only way you can have a softball field at all is to, say, place one on the corner of a football field when it's not in use (or some other sports playing field) then that's what you'll have to do. So you'll need to get creative and

make things much more portable so that you'll be able to have a softball field wherever there's a football field.

Remember to always try and look at your situation in a positive manner – having a permanent field means that you can play on it whenever you want to and you can make improvements on it over time. On the other hand, having a temporary field that can fit on any sport field and can be moved allows you to have as many different softball fields as there are athletic sport fields in your country. So, there's always a positive way to look at your situation.

## C) Who Will Be Playing On Your Field?

Since children play on smaller-sized softball fields than adults, and fastpitch uses different distances than slowpitch, if your field is going to be used by players of all ages then you will need to have the ability to quickly find the correct field distances for each age group. While this isn't hard to do, it will be important for you to know what age groups might possibly use your field so that when you're making it you can mark out the different distances all at once.

In addition to knowing the various age groups that will possibly use your field, you're going to need to know if teams will be playing both fastpitch and slowpitch because again, the distances for these two variations of softball are different.

Speaking of different sized softball fields for different groups, let's look at some charts to see how each age group differs and also how much different fastpitch is from slowpitch. The first chart we'll look at shows the ISF regulation distances for bases, the pitching rubber, the outfield fences (if you have any), and the size of ball to be used:

*Please note that these distances are based upon the 2010-2013 ISF Official Rule Book. If you are reading this manual later than 2013, then you should consult the ISF website (www.ISFsoftball.org) for the latest rules and distances.*

## ISF OFFICIAL DISTANCE TABLES

| DIVISION | AGE GROUP | BASES | PITCHING | OUTFIELD FENCE | BALL SIZE |
|---|---|---|---|---|---|
| ***ADULT*** | | | | | |
| FASTPITCH | Men | 18.29m (60 ft) | 14.02m (46 ft) | 76.20m (250 ft) | 30.5cm (12 inch) |
| FASTPITCH | Women | 18.29m (60 ft) | 13.11m (43 ft) | 67.06m (220 ft) | 30.5cm (12 inch) |
| SLOWPITCH | Men | 19.81m (65 ft) | 15.24m (50 ft) | 91.44m (300 ft) | 30.5cm (12 inch) |
| SLOWPITCH | Women | 19.81m (65 ft) | 15.24m (50 ft) | 83.82m (275 ft) | 27.9cm (11 inch) |
| SLOWPITCH | Co-ed | 19.81m (65 ft) | 15.24m (50 ft) | 83.82m (275 ft) | 30.5cm (12 inch) |
| ***YOUTH*** | | | | | |
| FASTPITCH | Jr. Women (19-under) | 18.29m (60 ft) | 13.11m (43 ft) | 67.06m (220 ft) | 30.5cm (12 inch) |
| FASTPITCH | Jr. Men (19-under) | 18.29m (60 ft) | 14.02m (46 ft) | 76.20m (250 ft) | 30.5cm (12 inch) |
| FASTPITCH | Jr. Women (16-under) | 18.29m (60 ft) | 12.19m (40 ft) | 67.06m (220 ft) | 30.5cm (12 inch) |
| FASTPITCH | Jr. Men (16-under) | 18.29m (60 ft) | 14.02m (46 ft) | 76.20m (250 ft) | 30.5cm (12 inch) |
| SLOWPITCH | Jr. Women (19-under) | 19.81m (65 ft) | 15.24m (50 ft) | 80.77m (265 ft) | 27.9cm (11 inch) |
| SLOWPITCH | Jr. Men (19-under) | 19.81m (65 ft) | 15.24m (50 ft) | 91.44m (300 ft) | 30.5cm (12 inch) |
| SLOWPITCH | Jr. Women (16-under) | 19.81m (65 ft) | 14.02m (46 ft) | 80.77m (265 ft) | 27.9cm (11 inch) |
| SLOWPITCH | Jr. Men (16-under) | 19.81m (65 ft) | 14.02m (46 ft) | 91.44m (300 ft) | 30.5cm (12 inch) |

Now, for those of you that will possibly be using this field for school-aged programs, while the ISF does not currently offer World Championships in age groups below 16 years of age (or a Jr. Boys' World Cup), we do encourage younger aged children to learn to play softball. Therefore, the following table shows the suggested distances and ball sizes for young children.

## Suggested Distances – School Age Programs

| Age | Pitching | Bases | Ball Size |
|---|---|---|---|
| 6 and Under | T-ball | 25 feet (7.6m) | tennis balls |
| 8 and Under | T-ball | 45 feet (13.7 m) | 9 inches (22.8cm) or tennis ball |
| 10 and Under | 35 feet (10.66 m) | 55 feet (16.76 m) | 11 inches (27.94 cm) |
| 12 and Under | 35 feet (10.66 m) | 60 feet (18.28 m) | 12 inches (30.48 cm) |
| 14 and Under | 40 feet (12.19 m) | 60 feet (18.28 m) | 12 inches (30.48 cm) |

# 4. Making the Playing Surface

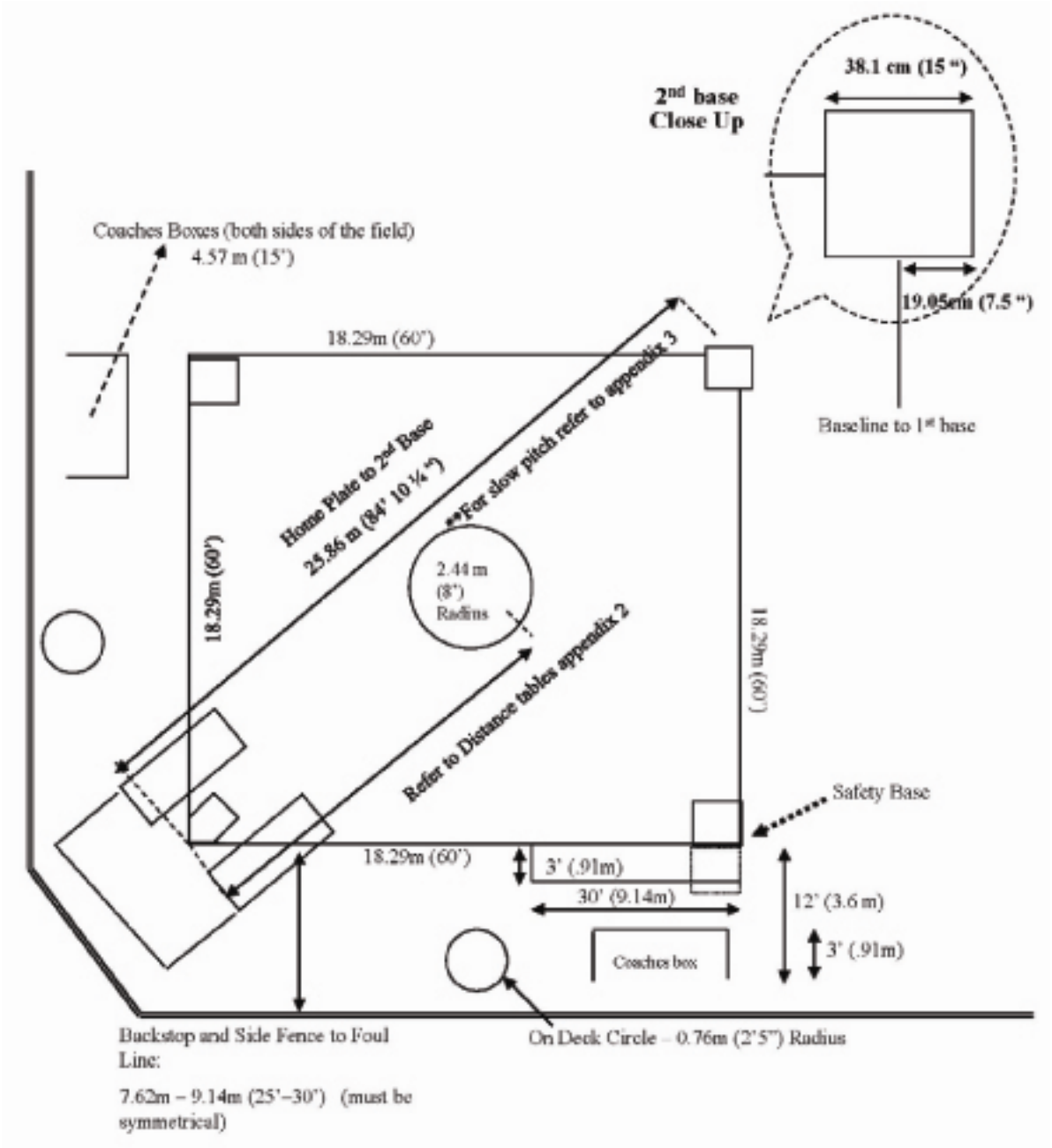
How you make the actual playing surface of your softball field will depend on whether you have your own land to use or if you need to place your field on an already existing multi-sport field or a football field.

Before we discuss playing on a dirt infield versus an all grass infield, let's look at some diagrams of how you layout an actual softball field – keeping in mind the distances that we just looked at in the previous tables.

## Playing Field Layout and Dimensions

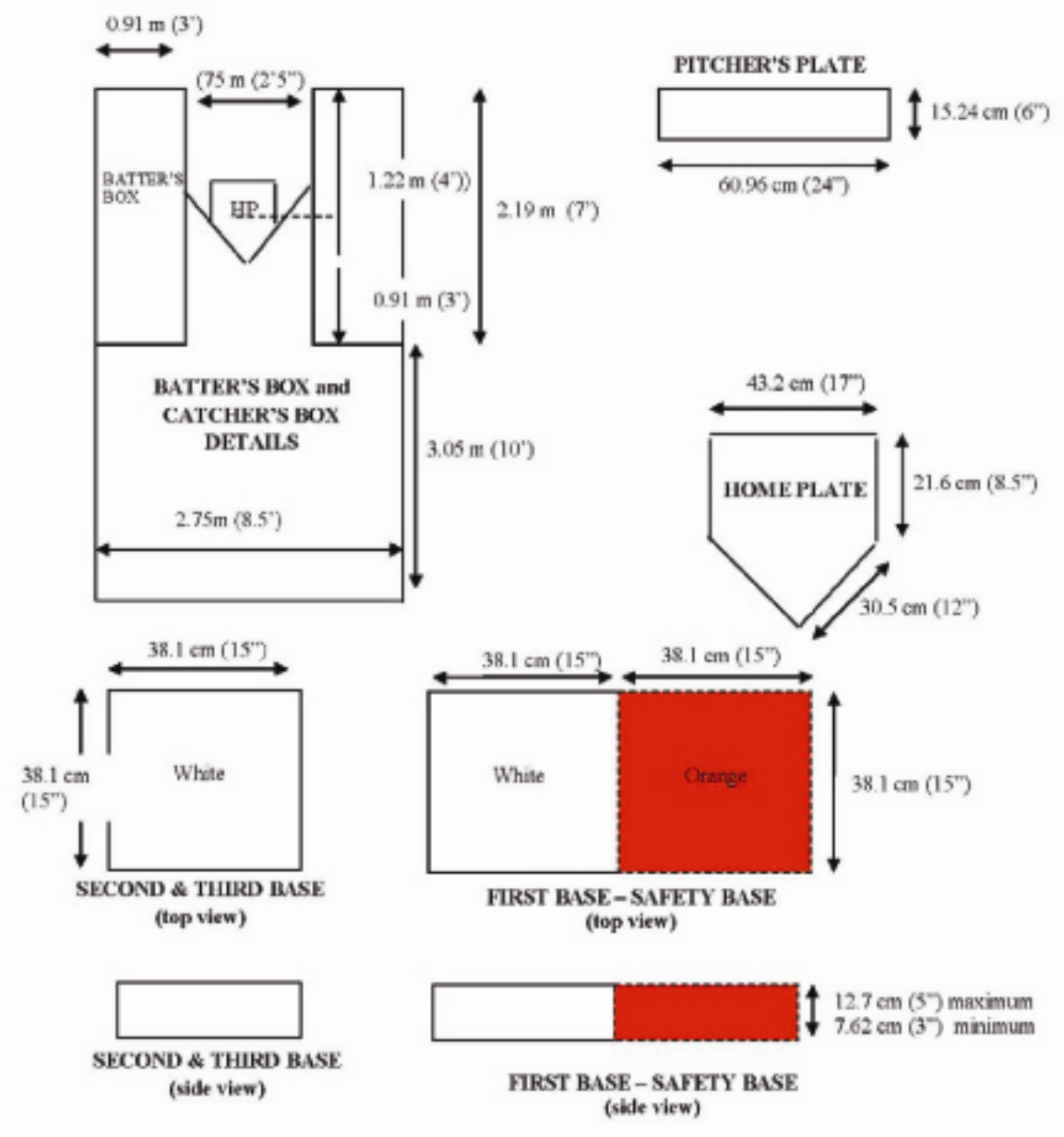
The following diagram shows the field layout and distances for a women's fastpitch game using a 13.11m (43 ft) pitching distance, 18.29m (60 ft) bases, and no outfield fence. Please remember that the pitching rubber, the base and outfield fence (if you have one) distances all can change according to the previous chart and the age group and sex of the teams playing.

What WILL NOT CHANGE about the following diagram, no matter who is playing on the field, are the distances that the playing field sits from the backstop. You might not be in a position to have a backstop 7.62m-9.14m (25-30 ft) from homeplate and the two foul lines – that's okay. But, just know that if the backstop is too close to homeplate, balls that get past the catcher will rebound back too quickly. If the backstop is too far from home plate, you're going to spend a lot of time chasing after balls. You can still play softball under these conditions; it just becomes a little more challenging.

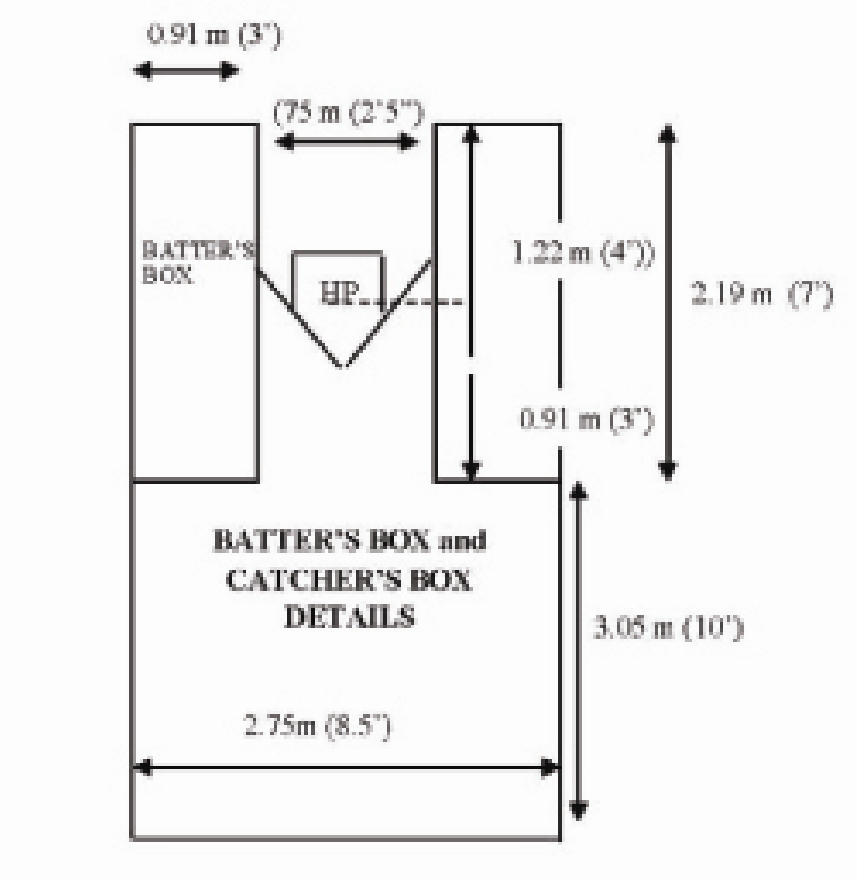

2nd base
Close Up
38.1 cm (15 “)
19.05cm (7.5 “)
Baseline to 1st base
Coaches Boxes (both sides of the field)
4.57 m (15')
18.29m (60')
Home Plate to 2nd Base
25.86 m (84' 10 ¼ “)
**For slow pitch refer to appendix 3
18.29m (60')
2.44 m
(8')
Radius
Refer to Distance tables appendix 2
18.29m (60')
Safety Base
18.29m (60')
3' (.91m)
30' (9.14m)
12' (3.6 m)
3' (.91m)
Coaches box
Backstop and Side Fence to Foul Line:
7.62m – 9.14m (25'–30') (must be symmetrical)
On Deck Circle – 0.76m (2'5") Radius

## Softball Field Dimensions

Now let's take a closer look at the measurements for home plate, the pitching rubber, and the bases:

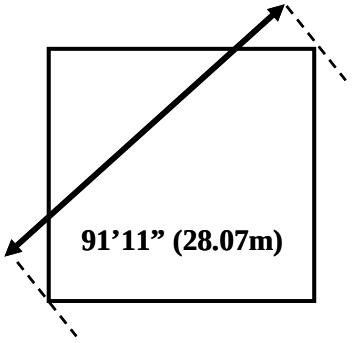


Placed on either side of home plate are big rectangles called “batter’s boxes.” These are where the batter stands to hit the ball. The following diagram shows the measurements for placing the batter’s boxes and catcher’s box (the area where the catcher plays) in relationship to home plate:

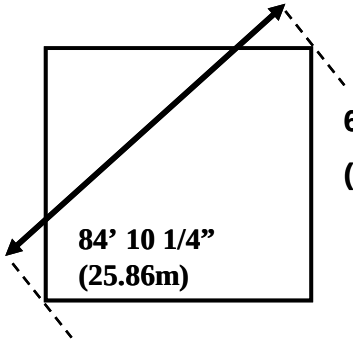


The last measurement that will really come in handy when you are laying out the bases for your field, is the distance between home plate and 2nd base. Since the base distances vary between fast and slowpitch and between age groups, so too will the distance between home plate and 2nd base. Here's a guide to knowing that distance:

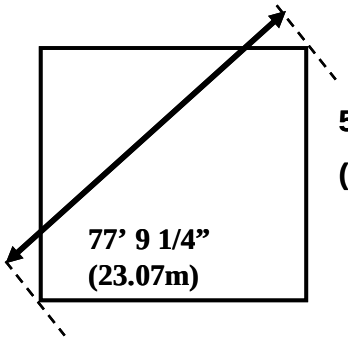
## Home Plate to 2nd Base Measurements:




**65 ft Base Distances**
**(19.81m)**




**60 ft Base Distances**
**(18.29m)**




**55 ft Base Distances**
**(16.76m)**

# Skinning the Infield

If you're lucky enough to have your own land to use then you will probably want to have an all dirt infield, and to do so means you're going to have to remove all the dirt from the infield area which is called, "skinning your infield".

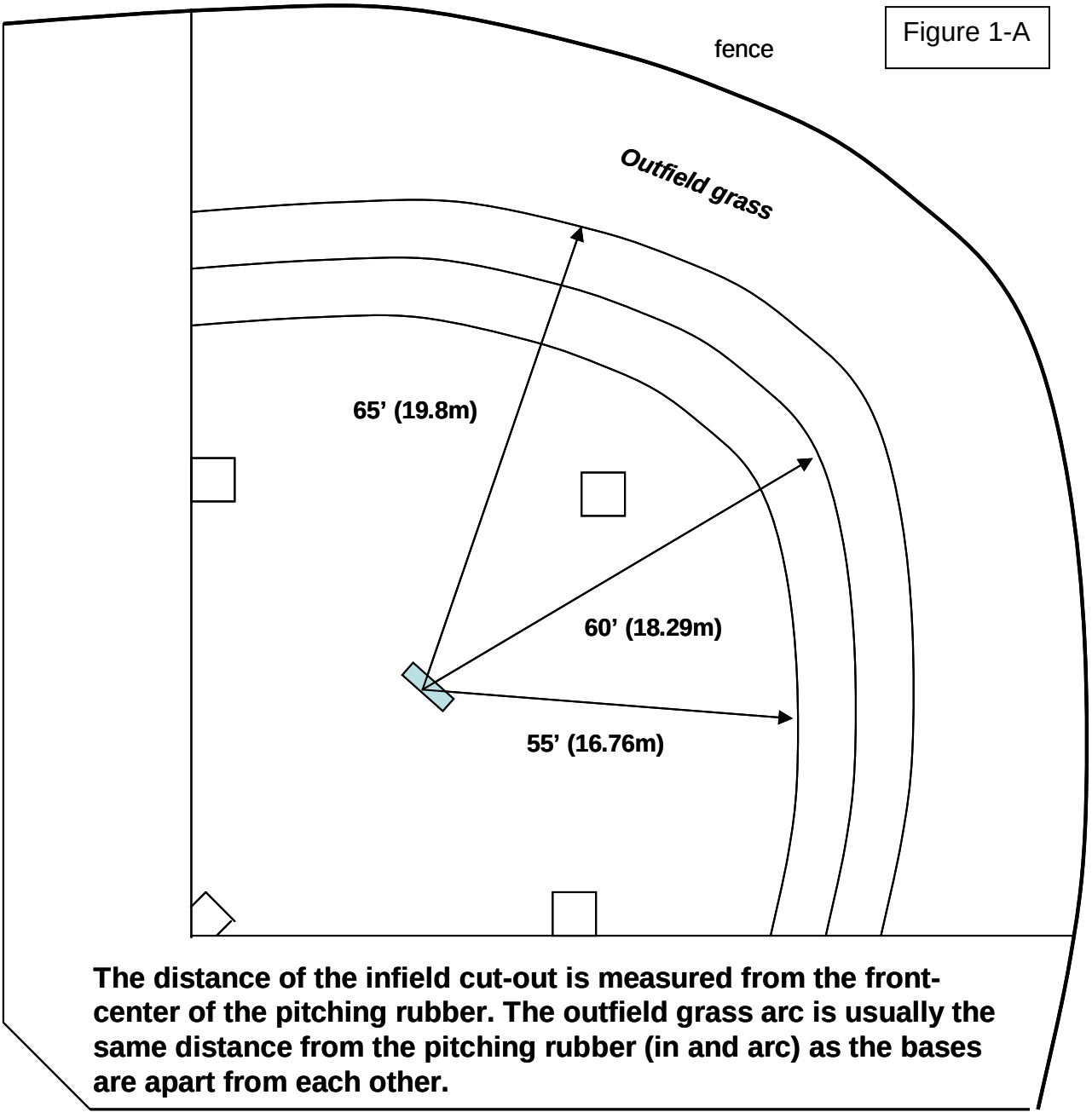


Figure 1-A
fence
Outfield grass
65' (19.8m)
60' (18.29m)
55' (16.76m)
The distance of the infield cut-out is measured from the front-center of the pitching rubber. The outfield grass arc is usually the same distance from the pitching rubber (in and arc) as the bases are apart from each other.

Note – if you are using your softball field for both adults and children's games, which means you will be using different base distances, then your outfield grass arc should be at 65' (19.8m), which is where it would go for the adults. The children won't care if the grass starts too far away. This is much better than having it be too close to the adult infielders.

## Clean the Infield

Once you've removed the grass from your infield then you'll need to clear off all the little stray grass sections and weeds (cleaning your infield). Cleaning it will best be done by hand with a few people walking all over the dirt portion and picking out all the stray grass and weeds.

## Adding a Sprinkler System

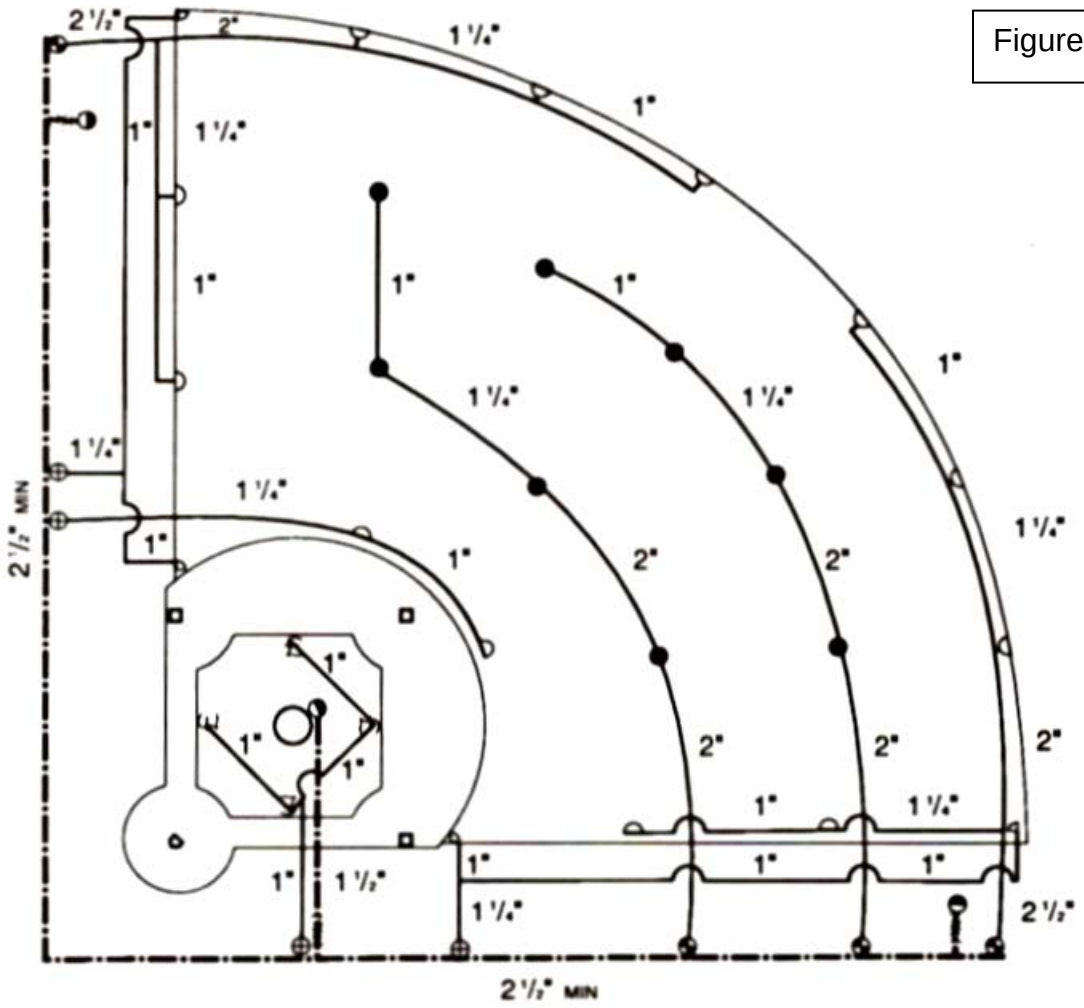
If you're really serious about making a good looking softball field and then keeping it in good condition, you're going to need to have a sprinkler system underneath both the outfield grass and the infield dirt. While this might not be possible for many of you reading this, that's understandable. If you can somehow provide a sprinkler system, you will really see the benefit in the form of a beautiful softball field.

Diagram 2-A shows the typical layout for a softball field irrigation or sprinkler system. Most of the sprinkler heads will be placed in the outfield to water the grass, but there will be at least one head placed in the infield (usually just behind the pitching rubber) to allow a hose to be attached and the infield dirt watered. This watering of the infield dirt prevents it from drying out and then blowing off your field every time the wind blows. We'll talk more about watering your infield in the last chapter of this manual – Caring for Your Field.

When you place the sprinkler heads in the ground make sure that they lie below the surface when they aren't in use so that outfielders won't trip over them. You want to make sure that your playing field is as safe for your teams as possible.

# TYPICAL IRRIGATION LAYOUT

Figure 2-A




**Legend:**

- ● I40-36S-42 Pop-up Sprinkler
- ◦ D ○ I40-ADS-42 Pop-up Sprinkler
- HBV-151EP 1 1/2" Electric Valve
- ⊕ HBV-101EP1" Electric Valve
- HV-151-RL 1 1/2" Quick-Coupling Valve
- PVC Mainline (per local code)
- PVC CL200 (size as noted)
- £ I20-ADS-07-LA Rotor Pop-up
- 1 1/2" Gate Valve

**Notes:**

1. Maximum circuit gallonage - 62 GPM
2. Minimum mainline operating pressure at field - 65 psi
3. 8 controller stations required
4. Full-circle sprinklers require approximately twice the watering time as half-circle sprinklers and four times the watering time as quarter-circle sprinklers.
5. Check local codes for backflow requirements.

Source: Hunter Industries.

**Helpful Websites:** Some website links that offer good information on both caring for your field and on field irrigation systems are:

http://www.hunterindustries.com/Resources/Design/sports_field_plans.html

http://www.athleticturf.net/athleticturf/article/articleDetail.jsp?id=81458

http://www.ballfields.com/

http://www.gmsforsportsfields.com/

http://www.ballfields.com/tips.htm

## Adding Infield Mixture

Once you clear off all the grass from your infield area and make an arc cut where the infield meets the outfield grass (diagram 1-A) you'll want to add some infield mixture over the infield dirt. The makeup of this infield mixture will depend upon where you are located in the world and how much or how little rain you get. The more rain the more sand you will want in the mixture since sand acts as a drain for the rain water. On the other hand, if you live in a really dry and windy climate then you will want a little more clay so the wind doesn't blow all the sand away since clay is heavier than sand. Be careful not to add too much clay since it can become extremely hard – especially if you aren't able to water it often. Below is a chart showing different qualities of substances used in combination to make up infield dirt:

| Soil Separate | Recommended Percent Range | Comments |
|---|---|---|
| Sand | 50% - 75% | Higher than recommended amounts = increased soil mobility = increased maintenance. Avoid sands with surfaces that are severely angular or rounded as well as highly spherical. For lower maintenance fields, use a soil with 65 - 75% sand content. High maintenance infields can use a tighter soil for better traction by decreasing the sand content to between 55% and 65%. |
| Silt | 15% - 35% | Stay with lower end of recommended values to avoid dusty infields. High levels of silt (>30%) will increase the slickness of an infield skin surface when it is wet. |
| Clay | 15% - 35% | Infield soils with clay contents higher than 25% may require the addition of soil amendments for proper soil consistency. |

Most infield mixtures will be some combination of Sand-Clay-Silt. If you can have these mixed locally and dumped on your field it will really make a difference in the quality of the field and how safe the field is for your players to play on. Infield soil selection will vary from location to location. For example, a good infield mix is 65% clay, 10% silt, and 25 % sand mixture which passes through a .32 cm (1/8 inches) screen. If you are able to you can further condition the soil by adding a mixture call “TURFACE Pro-League” at a 20% blend, 10.16cm (4 inches) deep to absorb excess water and to keep the clay from becoming too hard. Rain should not ruin the infield soil because TURFACE is incorporated into the infield mix. (TURFACE Pro-League is a brand name identifying a clacined clay material used for conditioning infield clays and soil blends. www.turface.com)

## *Tips on Infield Soils:*

- √ Grab a handful of moist infield mix and squeeze it. It should hold together when moist, but not be slick.
- √ There should be no stones in the mixture.
- √ Ask for the clay, silt, and sand content of the mixture that you are getting.
- √ The more your field will be used the firmer the footing will need to be and thus you will need more clay in the mixture.
- √ Soils need to be conditioned (if possible). Using products like TURFACE Pro-League will help absorb excess water, hold consistent moisture content, and provide a firm and safe surface.

Once you have your infield mixture on your infield you’ll need to roll it in order to flatten it out. Keep in mind that you will want to keep a slight crown (high point) just behind the pitcher’s rubber to allow the water to run off the infield toward the foul lines and the outfield. This “crown” will be very slight and will only be a few degrees – but will prevent rain water from pooling up on the field and creating a field of unusable mud.

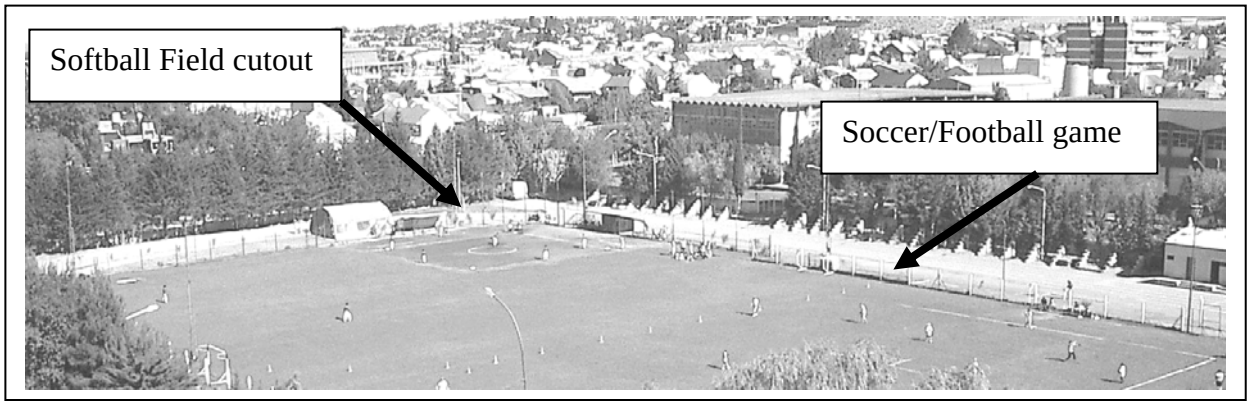
This is a picture of a roller that could be used on the infield to help flatten out the dirt on your infield. It’s nothing more than a heavy round drum that you push using the attached handles.

## Creating Proper Drainage

The easiest way to create drainage for any water buildup on your infield is to make your infield with a surface grade, or “crown.” A “crown” is a high spot on your infield, located behind the pitcher’s rubber, from which point all the water can flow and drain off the field. An infield should be graded to have a minimum of 0.5% slope with the maximum allowable of 1%. Anything less than .5% won’t allow the water to drain and anything greater than 1% will effect how balls roll on the infield. Be sure to properly maintain the grade, or “crown,” by always starting at the pitcher’s mound and moving in large outward circles when you drag the infield.

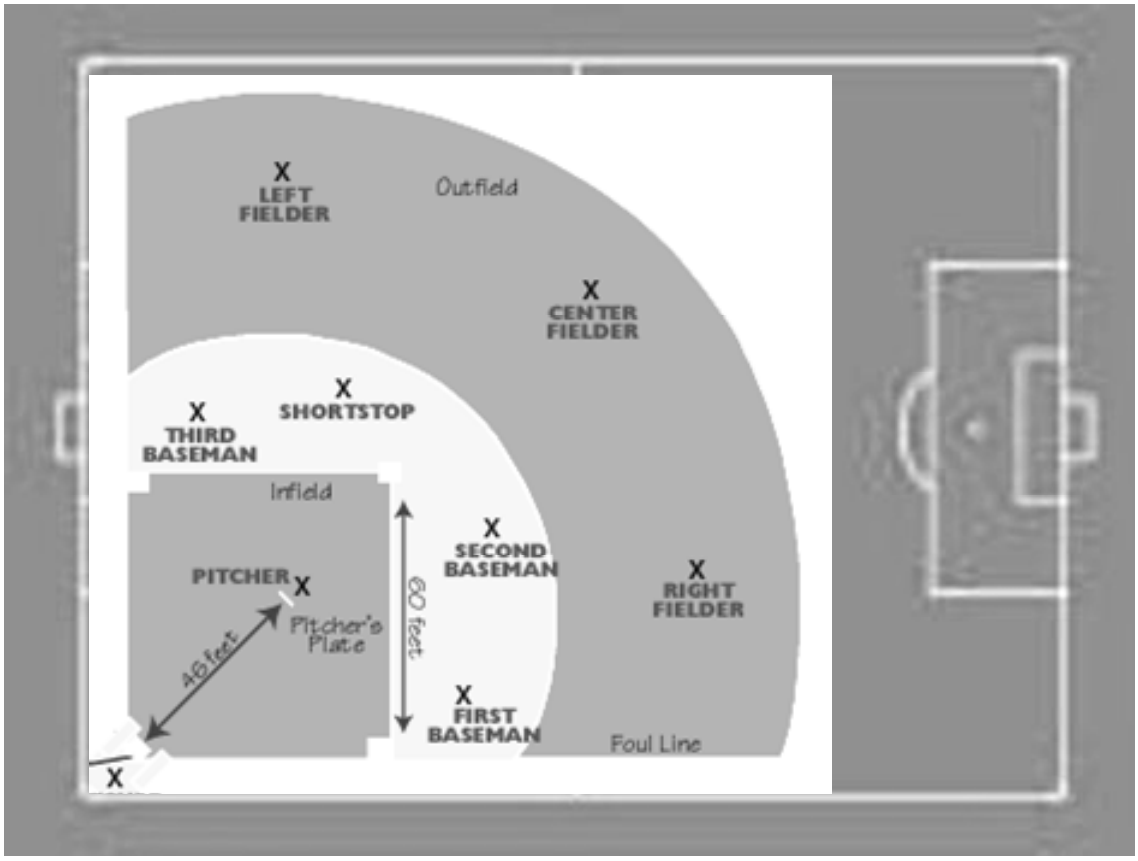
## Preparing an All-Grass Infield

Below is a picture of a multi-sport playing field in Argentina. The arrow shows the softball field cut out of the top corner of the grass leaving enough room for the soccer/football game across the bottom:




If you’re going to be placing your softball field on a grass playing field like a football, cricket, or rugby field, then you’ll want to first consider the following issues when deciding just where to place your field:

Another view that might be helpful in your situation in placing a softball playing field or pitch on a soccer or football field is below. In this view you can see how placing homeplate of your softball field in a corner of the soccer or football field will allow you enough room to setup and entire softball playing field:




1. Pick the smoothest, flattest portion of the field.
2. Picking a corner of an existing field will allow you to use lines that might already be there to make the other sport fields.
3. Pick a corner that might already have some fencing to serve as your backstop.
4. If possible, try to place the field so that sun is not in either the batter's or the 1st baseman's eyes. Unless you play at Noon when the sun is directly overhead, the sun will be in somebody's eyes – that's unavoidable. What you don't want is for the sun to be in the eyes of the batter, the pitcher, or the 1st baseman.
5. Once you decide where to place your softball field, walk that portion of the sport field and make sure all rocks are off the field and that there are no large holes that players could step in and sprain their ankle.

The picture on the left shows a softball field on an all-grass multi-sport playing field in India. On the right you can see how they placed a softball field in a football/soccer stadium in Kenya. If your situation forces you to use an existing sport field, or “pitch,” for your softball field, then just keep in mind the five tips mentioned above, and that you will still need to measure and place down bases, home plate, and a pitching rubber.

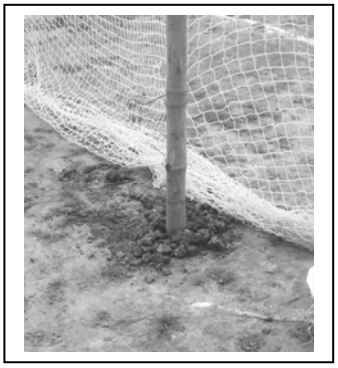
# 5. Making the Backstop

A backstop is a structure (usually fencing or netting of a small weave type) that is placed behind home plate about 4.57m to 9.14 m (15-30 ft). Now, the Softball Field Dimensions guide on page 11 of this manual states (as does the ISF Rule Book) that it should be 7.62m-9.14m (25-30 ft) from both home plate and the foul lines to the backstop and the side fences (side fences are simply backstops that continue down both sides of the field parallel to each foul line – you do not have to have these on your softball field). Please note that these measurements are for ISF Championship play and what you do on your local federation fields may need to be different.

Backstops have typically been made out of metal poles and wire netting of some sort. This picture shows a really tall backstop but yours does not need to be this high. The poles run up and down (vertical to the ground) and the netting or fencing is attached to the poles.

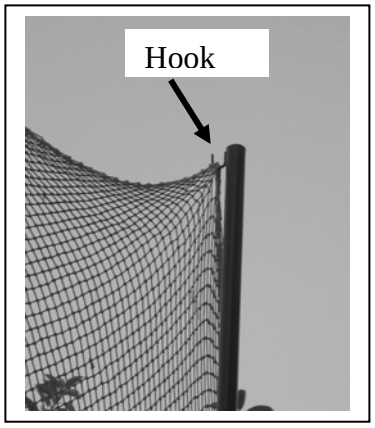
Some of the ISF member federations have been very creative in making their backstops. In India bamboo is very prevalent so they use it for the poles of their backstop. Their softball fields need to be portable so they have devised quite a clever system for putting up a backstop wherever they are on any already existing sport field.

The following pictures show how they put the poles into the ground. On the left they simply dig a hole and insert the bamboo stake, but on the right they have specially built metal braces with pointed ends that they insert into the ground and then slide the bamboo into the support holes.



They use netting as their backstop material and roll it up into a bag for easy transportation to the next field. This is a terrific system and is not only very creative, but also meets their needs of being portable. The key to remember when using NETTING as your backstop is to make sure the holes in the netting are smaller than the size of a softball (so the ball won't go through your backstop).

Here are a few other examples of people being very creative in making their backstops and using what is available to them:



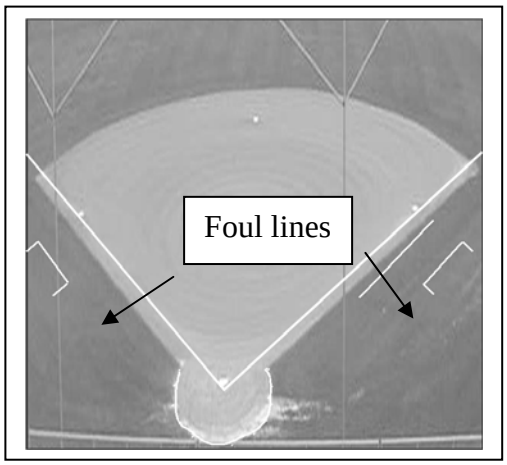

In China they place metal poles in the ground to hold up the netting. These poles have hooks on the top inside part and the netting just slips onto the hooks.

Using a hammer/discus cage in Kenya

To summarize, your budget and the permanency of your softball field will dictate what you do with your backstop. If you are able to use metal poles then try to use the thinnest poles that will be strong enough to hold up your netting or fencing. Thinner poles allow fans on the other side of the backstop to more easily see the game instead of looking at poles the whole game. The taller your backstops the thicker your poles will need to be in order to support the weight of the netting or fence. And finally, use what you have available in your part of the world – bamboo poles work as well in India as metal poles do in China or Kenya.

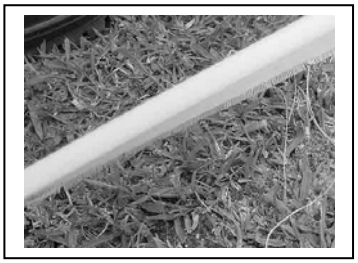
# 6. Making the Foul Lines

Foul lines are lines placed from the back point of home plate out in two directions all the way to the far part of the outfield or to the outfield fence if you have one. And just like in football, cricket, or rugby, they are white so they are easily seen against the colors of the grass and dirt. These foul lines are usually made with chalk (you can use the same material they use to line the football/soccer field), but you can also use flour or even very fine grade sand if it's white and you have lots of it. Once again, be creative in using what you have available to you in order to make the foul lines on your softball field.

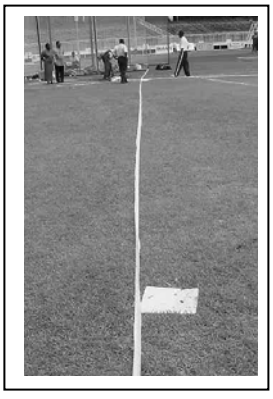


Chalk for your foul lines can either be applied by hand, or by using a line roller. Field paint can also be used instead of chalk, just keep in mind that it's a lot more permanent so if you have to share fields with other sports you might want to stick to using chalk or lime.

Many of our federations have been creative with making their foul lines as well, but none more than Kenya when they premiered softball in the All-African Military Games in the main football stadium of Nairobi. In order to show off the sport to as many people as possible the Kenyan Softball Federation agreed to play on the football field with the agreement that they would not make any permanent lines on the field. So what did they do? They used bed sheets torn into strips the width of a foul line and then tied end-to-end and fastened across the running track to some bench legs.



3-A



4-A

5-A

This is a very creative solution that allowed softball to be played in front of very large crowds and yet, not make any marks on the football field. Looking at the sheet up close (3-A) you can see some slight fraying of the edges, but when you look at the foul line from beyond 1st base (4-A), it looks the same as a foul line painted on a field in the USA (5-A).

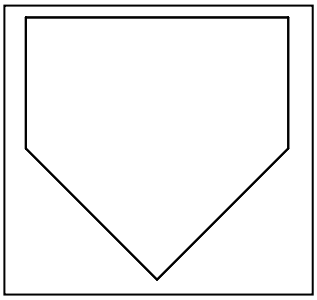
# 7. Other Parts of the Softball Field

Once you've got your field distances and the foul lines marked there are some things that you MUST HAVE and some things that you CAN HAVE on your softball field. The more permanent and impressive you want your field, the more of these items you'll want to add. Your budget will also play a big part in which of the following items you decide to add to your field.

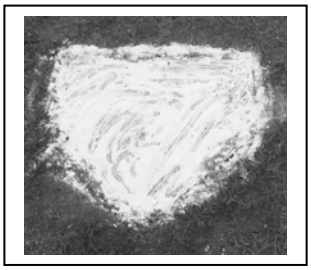
The ***Must Haves*** are things that every softball field has no matter where it's located or how large or small the budget. Let's take a look at the Must Haves -

- Home Plate and Pitcher's Plate
- Bases

## Home Plate and Pitcher's Plate



Home plate is a five-sided object that has a straight front and two straight sides, with a point in the back. The long straight side points at the pitcher and the pointed side goes in the back toward the catcher. The reason that home plate has a point is because this is where both foul lines meet.

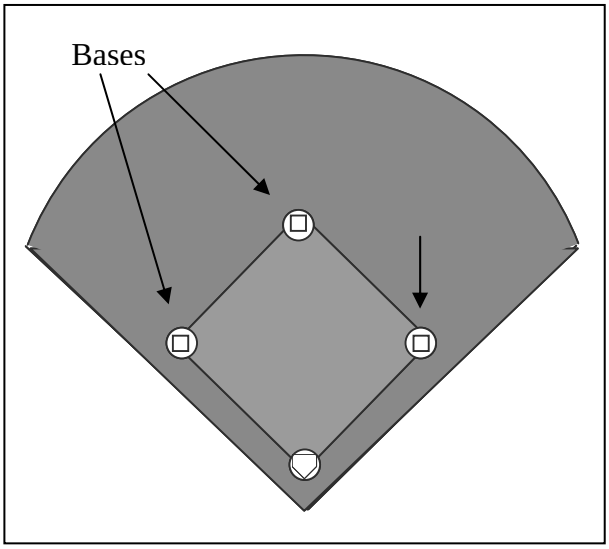


Home plate is usually made of hard rubber (so when baserunners with metal cleats on step on home plate they won't slip and fall), but can be made of wood, carpet, or even drawn out of chalk or lime as shown here in India. You will find the dimensions for home plate on page 11 of this manual.

The Pitcher's plate is also called the "pitching rubber' and is a strip of rubber, or carpet or chalk that's a long rectangular shape like the picture below. The size is listed on page 12 of this manual. The pitcher's plate goes directly out in front of home plate whatever pitching distance your particular age group or game uses as listed on page 9.

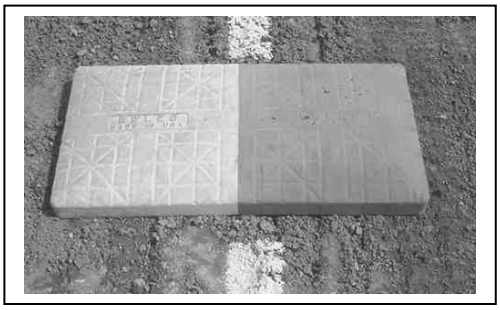
## Bases

Your field will need to have three bases on it with one base on three of the four corners of the diamond-shaped infield. The fourth corner will be home plate. Each of the bases is square-shaped and raised in order to make it easier for both the offensive and defensive players to make plays around the bases. The dimensions of the bases are listed on page 12 of this manual.




If it's possible, you should have a double-base at first base which is just what it sounds like; it's two bases put side-by-side as shown below:

The double first-base, or "safety base" as it's usually called, is designed to allow for two bases at the most active base, which is first base. One base, the white one, is the defensive base and the other base, the orange base, belongs to the runner. This helps prevent collisions when the ball and the runner arrive at 1st base at the same time.



From this view you can see how much a base is raised above the infield surface. Again, this isn't mandatory but it will help increase the quality of the game played on your field if you are able to figure out a substance to use to raise the base.

Secure the bases – the final piece of information regarding bases involves safety, and that is to make sure that your bases are secured to the ground in some fashion so they don't move all over when runners touch them going full speed on their way to another base. Straps tied around a base secured to a post can work to hold down a base as can fastening the base to a metal plate on the bottom side of the base that has a small post coming out of it that then pits into a slot on the ground. Use your creativity to make sure your players stay safe while running bases.

The other things you ***can have*** on your softball field are things that make your game and playing field better, but that aren't required in order to play the game.
They're things such as:

- Outfield Fence
- Dugouts
- Scorer's Area
- Bleachers
- Scoreboards

## Outfield Fence

Having an outfield fence is nice, but not required unless you will be using the field for ISF championship play. The outfield fence distances are listed on page 9 and will vary depending on the age and sex of the players. If you are able to have an outfield fence of some sort then it might be easier to have only two different distances for it; one for the really young children that might be using your field and one for the adults with the farthest outfield distance. This will keep you and your organization from switching fence distances all the time, which is a pretty tough job.

An outfield fence can be made of netting, wood, or fencing as long as:

- If made of some hard material like wood or fencing, it is tall enough to prevent an outfielder from flying over the fence if they run into it while catching a ball running full speed.
- If you use some kind of pole or stake to hold up the fence, that the top of the stake is padded and the outfielder's head cannot hit the stake while trying to make a catch.

## Dugouts

This is the part of the softball field where the teams sit while they are batting, or where the extra players and coaches sit for the team on defense. Dugouts can be as simple as a bench for players to sit on and as fancy as being covered and having bathrooms. Most dugouts have enough sitting room for about 15 to 18 people and are usually covered to protect the players from the sun and any rain.

Dugouts are located off the field of play so that they don't get in the way of a player making a play. Let's look at a few examples of dugouts from different places around the world:

This is an unusually large dugout that has a protective screen in front so the ball is not hit into the dugout.

This is a simple dugout that also provides shade for some of the fans as well as the players.

Here's a well shaded dugout that barely holds three grown men, so it might need to be a bit bigger.

## Scorer's Area

The area where the scorer sits should be behind or near home plate and should be covered if possible. It should have a bench or chair for the scorer and a table to write on, and should somehow keep the scorer from being bothered by the players or the fans.

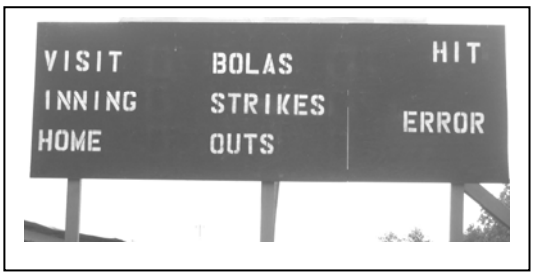
## Bleachers

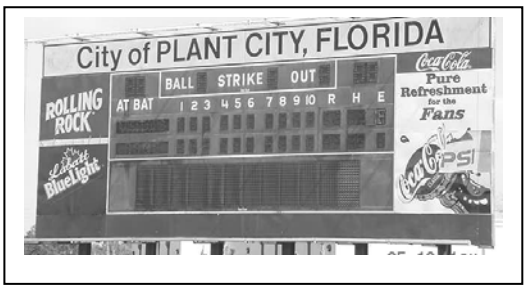
Bleachers are the name of the seats where the fans sit, and can be added as you need them. Since these are common to all sports you should be able to find bleachers of some sort for your field and your fans.

## Scoreboards

Scoreboards are common in all sports, and are used to not only keep the score of the game or match, but also to let the fans and players know information about the game. The bigger the scoreboard the more information it can list. Common things that an average sized board can display for softball are the score, the number of outs, the inning, and the number of balls and

strikes. Much larger boards can also tell things like who is current batter, whether the last ball hit was a hit or an error, and some of the fancy boards can even show video replays. Your scoreboard can be just that – a board that you hang the score on. It doesn't have to be electric if that's not something that is financially possible. Let's look at a few scoreboard examples:




# 8. Caring For Your Softball Field

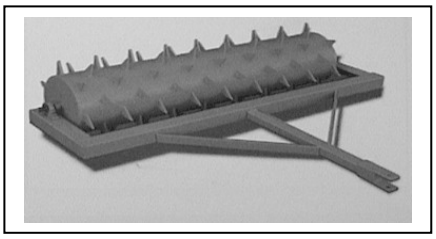
You will need to learn how to care for both the grass and the dirt (infield portion) of your softball field, assuming that your field has a dirt infield. If not, then caring only for grass becomes your main concern. The more time and attention you give your field the nicer it will look and the better playing surface it will be for your teams and competitions.

## Caring For Your Grass

Any kind of heavy athletic traffic is hard on grass. The constant use from running makes the dirt underneath the grass get compacted which weakens the grass. Let's look at some things you can do to try and maintain better care of the grass on your softball field (whether it's your outfield and infield grass or just the grass on your outfield):

- √ **Aerate Your Field –** Aerating is the most important turf maintenance practice. It helps loosen up the compacted soil caused by all the foot traffic and allows the air and water to move freely within the roots of the grass. The core-aerator machine is used to pull plugs, or "cores," out of the ground to alleviate soil compaction allowing water, fertilizer, and oxygen to more easily move down to the roots. This is a common practice for all types of grass sporting fields and not just something done on softball fields, so you should talk to

the operators of other sport pitches or fields regarding how they aerate their grass. These aerators usually all have handles on them and can be pushed by hand or pulled behind a tractor.



- **Topdress Your Field –** This means to spread a light material, usually sand, over your grass to fill in the low spots and to help smooth out and even out the playing surface

- **Over-Seed –** Over-seed means to place a second seed blend into your grass surface. Every time that you aerate and topdress your field you should take the time to over-seed these same areas to help strengthen your grass. Over-seeding means to throw some grass seeds on top, or over, the existing grass. You can check with a local gardening or sports field turf expert to help you know the best grass variety for your field and area of the world.

- **Fertilizing Your Grass –** Your turf must have nutrients of nitrogen, phosphorous, and potassium in order to grow strong enough to handle the pressures that come with being a sport field turf. Local agriculture and garden experts can help you determine what the right fertilizer mix for your region will be. You should apply a complete balanced fertilizer at least once per year to your field and then supplement it by several additional applications of nitrogen during the growing seasons (if possible).

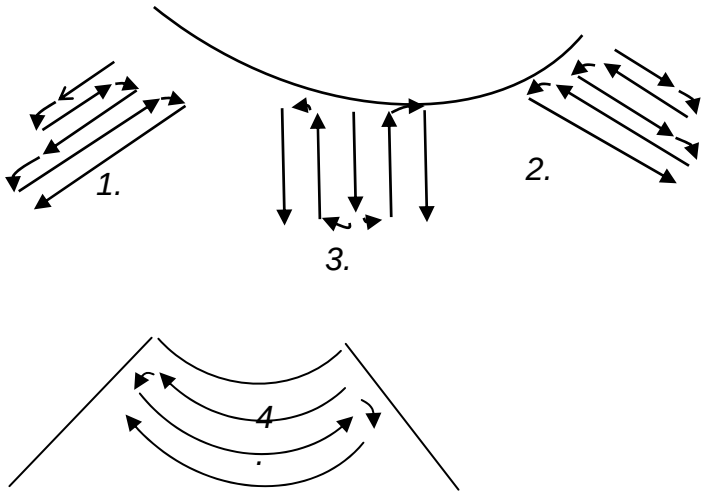
- **Watering Your Grass –** Once you have grass in your outfield you should irrigate (or water) heavily at least one day per week (if that's possible for you). This forces the roots to seek water down in the soil, resulting in a stronger and deeper root system. Try to water your turf immediately following a game or tournament in order to help the grass recover and strengthen quicker. Under severe drought conditions your turf will lose 1 cm (1/4 to 1/3 inches) of water per day. When grass starts to show wilt due to heat and lack of water the areas should be soaked to a depth of 15.24 – 25.4 cm (6-10 inches). Deep water encourages deep root growth which is good. Be careful though, because too much

watering can cause your grass to be waterlogged and spongy. If you live in a region of the world that gets frequent rains, remember that frequent aerating will help to keep the soil open and allow the water to be absorbed better down into the root system. Try to water early in the day and do it slowly and heavily to let the water get deep into the root system.

- **Mowing Your Grass –** Once your grass starts growing you will need to start mowing your grass. Mowing patterns should be alternated every time your turf is cut. This promotes a strong and level turf surface by forcing your grass to grow upward rather than falling in horizontal pattern. The mowing of the outfield grass should be done often enough so that the grass does not grow more than 2.54 cm (1 inch) above the desired length. A longer cut may be used on fields that are not being used regularly. The longer cut permits greater photosynthesis, developing stronger, healthier grass. There usually are four mowing patterns to use on softball fields:

**Mowing Pattern Tips:**

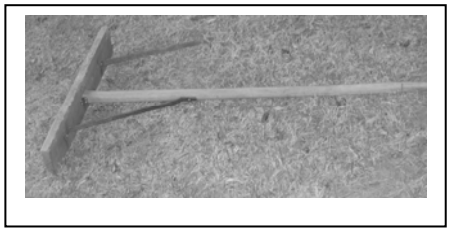
1. Up and down parallel to the right field foul line.
2. Up and down parallel to the left field foul line.
3. From second base to center field, back and forth.
4. From foul pole to foul pole, back and forth.



## Caring For Your Dirt

If your softball field has a dirt infield then you're going to have to spend time caring for it just as you do the grass on your field. Your infield dirt needs to be watered and weeded just as often as your outfield grass. Watering your infield dirt prevents the dirt from drying out and blowing away, and the weeding keeps the infield smooth from bad bounces and looking clean and nice.

√ **Drag Your Infield Dirt -** The best way to care for your infield dirt and to make sure it stays level and smooth is to "drag" it. This is a term for dragging or raking the dirt in a long arching fashion. Dragging will occur before a game/match or practice to make sure that the dirt is level and then following the game or practice to make sure that the ground stays level. You can use several rakes or brooms to drag your infield, or you can make a long mat and attach it to a rope to pull it – or drag – it across the infield as shown below.



When dragging the infield make sure that the drag does not overlap onto your outfield grass area. This will cause a dirt build up and a "lip" will begin to form, which will cause ground balls that hit this lip to jump, thus making it more difficult for your outfielders. Try to vary the direction and the design of your dragging so that your dirt does not begin to form ruts from the drag.

√ **Nail Drag Your Infield Dirt -** If your infield dirt becomes really hard, which often happens following heavy rains, you might need to use what is called a nail drag to break up the ground. A nail drag is just that – a drag that has long nails or spikes coming out of the bottom of it as shown to the left. The nails help break up the dirt, which will

then allow you to move your regular drag over the infield and further break up the dirt clumps. Once all the clumps have been worked out of the infield then you'll want to give the field a light watering.

- √ **Watering Your Infield Dirt –** Watering your dirt is crucial to keeping it in great playing condition, and, to keep it from drying out and blowing away. When you water your dirt you will want to sprinkle the water over it so that no mud or puddles form. You don't want to just turn the water on full and walk away and leave the hose for an hour – this will create a total mess when you return. You can use a sprinkler to water the infield dirt if it rotates around the field. If you don't have a sprinkler then you'll have to water by hand. Just know that even though it might take you a lot of time to do this, it will really help the quality of your infield a result.

- √ **Weed Your Infield Dirt –** Pull out any weeds you find as soon as you see them.

# More Information

We hope this manual has helped you and your federation learn how to build a softball field on a very limited budget. The intent was not to create a total and complete guide to building a multi-million dollar ISF Championship facility. If that's what you are interested in doing then please contact the ISF for our championship play manual. The ISF encourages you to try and build as many softball fields as you can within your country so that more people around the world can enjoy this great game of softball!

**LIGHTING** – If you are interested in information regarding lighting your field, we currently have that on our website and you can download it from there.

Again, if you are interested in finding out more information on building or caring for your softball field then we encourage you to check out the following websites:

http://www.hunterindustries.com/Resources/Design/sports_field_plans.html

http://www.ballfields.com/

http://www.gmsforsportsfields.com/

http://www.ballfields.com/tips.htm

http://www.musco.com/musco.php

http://hcs.osu.edu/sportsturf/

http://www.bowcom.com/

## COMMENTS & FEEDBACK

This manual was written based upon the demand from many of our member federations. If there is additional information or changes in information that you would like to see or information that you have that you would like to share with others, please email us (info@ISFSoftball.org), so that we can make this as current and useful a tool as is possible.

**Thank You and Good Luck!**